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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,879	01/16/2004	David Yee	220772010700	6985

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755 PAGE MILL RD
PALO ALTO, CA 94304-1018

EXAMINER

CASAREGOLA, LOUIS J

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No.		Applicant(s)	
	10/758,879		YEE ET AL.	
	Examiner		Art Unit	
	Louis J. Casaregola		3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/21/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
 4a) Of the above claim(s) 6-8, 10-26 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-36, 38 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 9, 39-40 is/are rejected.
- 7) ☒ Claim(s) 4, 37, 41-43 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election

Applicants' election of the invention of Group I (method) and the species combining the multi-stage preburner (Fig. 5A) with the control system of Figure 12 is acknowledged. Applicants have listed claims 1-5, 9, 27, 30, 33-37, and 39-43 as the Group I claims readable on the elected species, and an action on the merits of these claims is presented below.

Objections To Claims

Claim 37 is objected to under 37 CFR 1.75(a) for the following reasons:

In claim 37, line 2, "the preburner" lacks antecedent basis.

Claim Rejections - 35 USC 103

Claims 1-3, 5, 9, 39 and 40 are rejected under 35 USC 103(a) as being unpatentable over Greeb in view of Pillsbury.

The claimed method for controlling a catalytic combustion system is encompassed by the operation of prior art combustion systems of the type disclosed by

Greeb. Attention is called for example to Greeb's Figures 5 and 6; note preburner stages 54 and 56 followed by catalytic combustion stages 58 and 60 (Fig. 5). Note also that preburner fuel flow 94 (Fig. 6) is adjusted using preburner temperature 84 as a feed back control parameter.

With regard to claims 39 and 40, it is additionally pointed out that the recited "second characteristic" corresponds to any of Greeb's other control parameters such as pre-burner inlet temperature, preburner inlet pressure, etc.

While Greeb's combustion system is shown with a single combustor, 32, it is well known in the art that catalytic combustion apparatus may employ plural combustor arrangements as shown, for example, by Pillsbury; see elements 26 in Figures 1 and 2. It would have been an obvious matter of engineering selection to configure a system like Greeb's to use such a plural combustor arrangement for large scale apparatus in which the required output could not be achieved with a single combustor of practical size.

Allowable Subject Matter

Claims 27-36 and 38 are allowed. Claims 4 and 41-43 contain allowable subject matter but are objected to as depending from rejected parent claims -- these claims will be allowed if rewritten in independent form. Claim 37 will also be allowed if amended to overcome the § 1.75 objection above. (Note that non-elected species claims 28, 29, 31,

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32 and 38 have been examined and included in the allowed claim set because of their dependence on allowed claim 27.)



L. J. Casaregola
571-272-4826 (M-F; 7:30-4:00)
571-273-8300 FAX
May 8, 2006

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).